

Concurrent Session 9A: Diet Intervention Studies/Obesity

Associations between depression and patient adherence in a weight loss intervention

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Background – Depression has a profound and complex association with coronary risk, both as an independent risk factor and indirectly through its effects on determinants of coronary risk such as BMI, diet, physical activity, smoking and medication treatment fidelity. Of particular interest is the impact of depression symptoms on initiation of and adherence to behavioural change to reduce coronary risk.

Objective – To investigate the association of depression with dietary adherence and weight loss outcomes in a community-based weight loss intervention.

Design – A group of 64 overweight (BMI >27), otherwise healthy adults, were recruited and randomised to follow either their usual diet, or an isocaloric diet in which saturated fat was replaced with MUFA to 50% by adding macadamia nuts to the diet. Subjects were assessed for depressive symptoms at baseline and at ten weeks using the Beck Depression Inventory (BDI-II). Both control and intervention groups received advice on National Guidelines for Physical Activity and adhered to the same protocol for food diaries and trial consultations. Anthropometric and clinical measurements were taken at baseline and 10 weeks.

Outcomes – There was a significant correlation ($R=-0.38$, $p<0.05$) between BDI-II scores at baseline and duration of participation in the trial. Subjects with a baseline $BDI\geq 10$ (moderate to severe depression symptoms) were more likely to dropout of the trial before 10 weeks ($p<0.001$). The BDI-II scores in the intervention (monounsaturated fat) diet group decreased, but increased in the control group over the 10-week period. Univariate analysis of variance confirmed these observations (adjusted $R^2 = 0.257$, $p = 0.01$). Body weight remained static over the 10-week period in the intervention group, corresponding to a relative increase in the control group (adjusted $R^2 = 0.097$, $p = 0.064$).

Conclusion – Depression symptoms have the potential to affect adherence to diet and physical activity-based risk reduction interventions, and may therefore be useful screening criteria.

Factors associated with the early introduction of solid foods

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Background – The early introduction of solids before 17wk has been shown to be detrimental to the health of infants. The current WHO recommendation is for infants to be exclusively breastfed to 6mo of age, with appropriate complementary foods being introduced after this age.

Objective – To investigate factors predictive of the introduction of solid foods before 17wk of age.

Design – Data on age of introduction of solids were collected from 519 mothers participating in a longitudinal study of infant feeding practices in Perth, Western Australia. Multivariate logistic regression was used to investigate variables previously identified as being associated with the timing of the introduction of solids.

Outcomes – The mean age of introduction of solid foods was 17.7wk (SD4.57). In total, 93% of infants had received their first solids by 26wk of age, with 44% before 17wk. Women who smoked (AdjOR 1.96 95%CI 1.29, 2.99) or were fully (AdjOR 2.68 95%CI 1.29, 2.99) or partially (AdjOR 1.81 95%CI 1.04, 3.17) formula feeding at 4wk postpartum were more likely to introduce solids earlier than non-smokers or women who were fully breastfeeding at 4wk. Mothers less than 20yr (AdjOR 4.65 95%CI 1.30, 16.62) were more likely to introduce solids earlier than mothers aged 30yr or older.

Conclusions – Few women complied with current infant feeding guidelines related to the introduction of solids. The literature suggests that the introduction of solids is led by mothers' perception of their baby's needs. Future interventions and information materials must highlight the health risks associated with the early introduction of solids, and young mothers and those who smoke may require targeted interventions.